



## QUICK WIN PROJECT – UDAIPUR SUNYA - TOWARDS ZERO WASTE

### About Udaipur

Udaipur is the sixth largest city in Rajasthan with a population of 4.51 lakhs (Census 2011). The city has an area of 64 sq km under municipal jurisdiction and acts as an industrial, administrative, and educational centre of the region. It is also an important tourist destination for national as well as international travellers. The city is relatively compact with a dense road network, but is gradually growing in all directions through lower-density development. The city core is the hub of commercial activities, whereas the eastern part of the city is well known for industrial establishments.



### CapaCITIES Project

Cities account for approximately two-thirds of global energy use and over 70 percent of energy-related greenhouse gas (GHG) emissions that drive global climate change. In India, increased demand for energy, infrastructure and services is putting city systems under pressure. This will be accentuated further by growing risks caused by climate variability. Poor and vulnerable segments of the city populations will be affected most. Through the Capacity Building for Low Carbon and Climate Resilient City Development project (CapaCITIES), SDC's Global Programme Climate Change will support and accelerate the Government of India's efforts for sustainable urbanization.



### SUNYA-Towards Zero Waste

There is no systematic storage and collection practice in Udaipur, with door-to-door waste collection taking place only in a few wards. From the rest of the city, the waste is collected by sweepers from the road periodically - twice a week or once a week. Community bins have been recently installed in a few wards. The collected waste is being directly dumped at the landfill site at Saveena Kheda. This could lead to severe environmental and health impacts in the city. Therefore, it is important to put in place a mechanism for proper collection, transportation, and processing and disposal of municipal solid waste in the City.

With the objective to support the city in its larger objective of sustainable waste management, with focus on reduction of GHG emissions from waste disposal, the CapaCITIES team along with Udaipur Municipal Corporation (UMC), initiated segregation practices in two wards on a pilot scale. The two wards with approximately 3500 households and commercial entities were chosen in discussion with the UMC. As a first step towards the initiative, ICLEI South Asia had conducted recce and preliminary discussion with citizens regarding the existing waste management practices in their areas. A quantification and characterization study of the two wards followed,



to assess the quantity of waste being generated and the composition of waste. Various IEC activities were conducted from last 7 months in these wards to aware the citizens about waste segregation practice and its benefit to themselves, city and the environment. A set of two dustbins (green and blue) were also provided to 3359 families and 191 shop keepers of ward number 1 and 41 through the project and process for the Decentralized Municipal Solid Waste Treatment Plant is already initiated.

## GHG Emission Reduction / Adaptation Impact

About 153 TPD of waste is generated in Udaipur from a population of about 5 lakh distributed in 55 wards which produced approx 5.50 kg of methane. The average per capita waste generation is estimated to be 300 gm/day. All the waste collected is in unsegregated form and directly go to the dumping site.

The most efficient way to reduce GHG emissions from waste disposal is to reduce waste generation at the source, followed by appropriate processing and scientific disposal of reject waste. The two pilot wards generate 2.65 tonnes of mixed waste daily. A two TPD biomethanation plant is being set up to process biodegradable waste from the two wards. The annual GHG mitigation potential of the two TPD biomethanation plant is 1,437 tCO<sub>2</sub>e GHG emissions.



Municipal solid waste contains large fraction of organic waste, which is a potential source of methane and other GHG emissions. In case of Udaipur there is a 60% fraction from the MSW is organic so as a part of Zero waste project composting is also gives a good solution to reduce the overall GHG emissions.

## Beneficiaries

Project beneficiaries include Udaipur Municipal Corporation and citizens of the Udaipur.



## Potential for Replication

UMC has already scaled up waste segregation practices to 10 wards of smart city area so there is a strong possibility to scale up this initiative to all 55 wards in near future.

Encouraged by the positive response and success of the pilot initiative in Ward 1 and 41, UMC has scaled up this initiative to 20 more wards under the guidance of ICLEI South Asia.

## Project Investment

The total project investment was CHF 107'355

For more information, please contact:

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